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AN AGAR-SUGAR PREPARATION USED AS FOOD IN PARASITE SHIPPING CAGES

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In making shipments of adult parasites, the food contained in the shipping boxes has presented many problems. Lump sugar and mixtures of sugar and honey have been used. The trouble with these foods has been deliquescence, resulting in a sticky sirup which traps many of the parasites. Liquids have been used, but in most cases the food ferments, and there is always the possibility of its being spilled.

An agar-sugar food was prepared in an effort to overcome some of the difficulties that have been encountered. The materials and preparation are as follows:

Agar	0.5 gram.
Granulated sugar	50 grams.
Water	50 cc.

Dissolve the sugar in the water. Add the agar and heat until dissolved. Allow the medium to cool a little; as it begins to solidify, remove small portions with a camel's hair brush, and place the drops on sheets of stiff paper. The best results were obtained when the adhering drops were about one-eighth inch in diameter and spaced one-eighth inch apart. The paper with the food attached may then be cut into pieces of any desired size and attached inside the shipping cage. If large quantities are to be prepared ahead of time, the unused supply should be kept in a humidor.

The preparation described above was compared with honey and water and with sugar and water in tests to determine the ability of the insects to assimilate it as food. It kept the parasites alive as long as either honey or sugar. It did not deliquesce even when dipped in water. The concentration of sugar was very unfavorable to fermentation. Large areas of the medium were exposed, none of the parasites were stuck to the surface, and to all appearances they experienced no difficulty in walking. The material adhered to the paper even after the agar had dried out. Should the moist food become dislodged in the cage, no difficulties will be experienced, as the food will be available and will not melt.

The agar-sugar preparation was used in making shipments of fruit-fly parasites from Hawaii to Moorestown, N. J., and to San Juan, Puerto Rico. Three of the four shipments arrived at their destination with a mortality of 10 percent or less.